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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/979,567	03/13/2002	Aldalbert Bandemer	3212-25	2828
22852	7590	10/17/2005	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			PHAN, HANH	
			ART UNIT	PAPER NUMBER
			2638	

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/979,567	<b>Applicant(s)</b> BANDEMER ET AL.	
	<b>Examiner</b> Hanh Phan	<b>Art Unit</b> 2638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office Action is responsive to the RCE filed on 05/31/2005.

#### ***Priority***

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 04/23/1999. It is noted, however, that applicant has not filed a certified copy of the Germany application as required by 35 U.S.C. 119(b).

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 5, 6, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyachi et al (US Patent No. 5,920,414).

Regarding claim 1, referring to Figure 3, Miyachi teaches an arrangement for monitoring the performance of D-WDM multiple wavelength systems, wherein signals are applied to a controllable wavelength demultiplexer (i.e., controllable wavelength demultiplexer 21, Fig. 3) for channel separation, which has associated photodetectors (i.e., photoelectric converters 22-1 to 22-N, Fig. 3) for signal verification, whose signals

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are applied to an evaluation unit (i.e., wavelength detector 23, Fig. 3, col. 10, lines 57-67 and col. 11, lines 1-30).

Regarding claims 2 and 3, Miyachi further teaches wherein the number of the photodetectors (i.e., photoelectric converters 22-1 to 22-N, Fig. 3) corresponds to a number of channels (i.e., N channels) of the demultiplexer (i.e., wavelength demultiplexer 21, Fig. 3).

Regarding claim 5, Miyachi further teaches wherein a passband characteristic of the demultiplexer can be varied cyclically with respect to at least one wavelength (Fig. 3, col. 10, lines 57-67 and col. 11, lines 1-30).

Regarding claim 6, Miyachi further teaches wherein the passband characteristic is varied by thermal modulation of a characteristic of a component of the arrangement (Fig. 3, col. 10, lines 57-67 and col. 11, lines 1-30).

Regarding claim 8, Miyachi further teaches an array of photodiodes (i.e., photoelectric converters 22a, Fig. 3).

Regarding claim 9, Miyachi further teaches the photodiodes array (i.e., photoelectric converters 22a, Fig. 3) has of one of a monolithic construction and a hybrid construction.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyachi et al (US Patent No. 5,920,414) in view of Otsuka et al (US Patent no. 5,841,557).

Regarding claim 4, Miyachi teaches all the aspects of the claimed invention except fails to teach a polarization manipulation device connected upstream of the wavelength demultiplexer along a signal path. However, Otsuka in US Patent No. 5,841,557 teaches a polarization manipulation device (i.e., polarization scrambler 14-1, Figs. 12 and 13) connected upstream of the wavelength demultiplexer along a signal path (col. 17, lines 32-67, col. 18, lines 1-67 and col. 19, lines 1-11). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the polarization manipulation device connected upstream of the wavelength demultiplexer along a signal path as taught by Otsuka in the system of Miyachi. One of ordinary skill in the art would have been motivated to do this since Otsuka suggests in column 17, lines 32-67, col. 18, lines 1-67 and 19, lines 1-11 that using such the polarization manipulation device connected upstream of the wavelength demultiplexer along a signal path has advantage of allowing to suppress non-linear optical effects and thereby improve transmission quality.

Regarding claim 10, the combination of Miyachi and Otsuka teaches a polarization scrambler (i.e., polarization scrambler 14-1 of Otsuka, Figs. 12 and 13) connected upstream of the demultiplexer along the signal path.

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7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyachi et al (US Patent No. 5,920,414) in view of Koga et al (US Patent No. 5,617,234).

Regarding claim 7, Miyachi teaches all the aspects of the claimed invention except fails to teach the demultiplexer comprises a phased array demultiplexer. However, Koga in US Patent No. 5,617,234 teaches the demultiplexer comprises a phased array demultiplexer (i.e., Arrayed-Waveguide Grating 12, Fig. 4, col. 6, lines 38-67 and col. 7, lines 1-2). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the demultiplexer comprises a phased array demultiplexer as taught by Koga in the system of Miyachi. One of ordinary skill in the art would have been motivated to do this since Koga suggests in column 6, lines 38-67, col. 7, lines 1-2 that using such the demultiplexer comprises a phased array demultiplexer has advantage of allowing providing a multiwavelength simultaneous monitoring circuit capable of precise discrimination of wavelengths of a wavelength division multiplexed signal.

8. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyachi et al (US Patent No. 5,920,414) in view of Otsuka et al (US Patent no. 5,841,557) and further in view of Bulow (US Patent No. 5,793,511).

Regarding claim 11, Miyachi as modified by Otsuka teaches all the aspects of the claimed invention except fails to teach a polarization switch connected upstream of the wavelength demultiplexer along a signal path. However, Bulow in US Patent No. 5,793,511 teaches a polarization switch (i.e., polarization switch 6.1, Fig. 6) connected

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upstream of the wavelength demultiplexer along a signal path (col. 6, lines 8-26).

Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the polarization switch connected upstream of the wavelength demultiplexer along a signal path as taught by Bulow in the system of Miyachi modified by Otsuka. One of ordinary skill in the art would have been motivated to do this since Bulow suggests in column 6, lines 8-26 that using such the polarization switch connected upstream of the wavelength demultiplexer along a signal path has advantage of allowing to compensate the polarization mode dispersion of the signal, reducing the interference between the signal and improving the signal quality.

Regarding claim 12, the combination of Miyachi, Otsuka and Bulow teaches wherein the polarization manipulation device (i.e., polarization switch 6.1, Fig. 6 of Bulow) operates synchronously with data detection and processing (col. 6 of Bulow, lines 8-26).

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye, can be reached on (571)272-3078. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

  
**HANH PHAN**  
**PRIMARY EXAMINER**



# REPLACEMENT SHEET

1/2



Approved  
HP.  
10/12/05

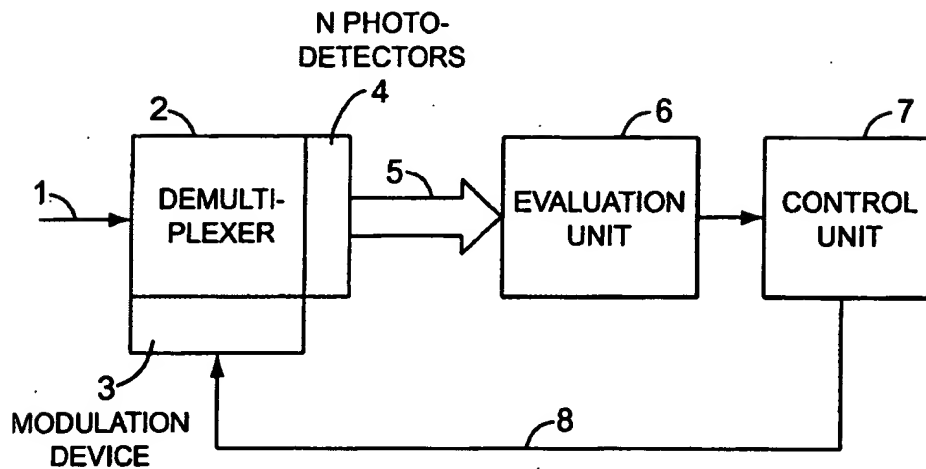


FIG. 1

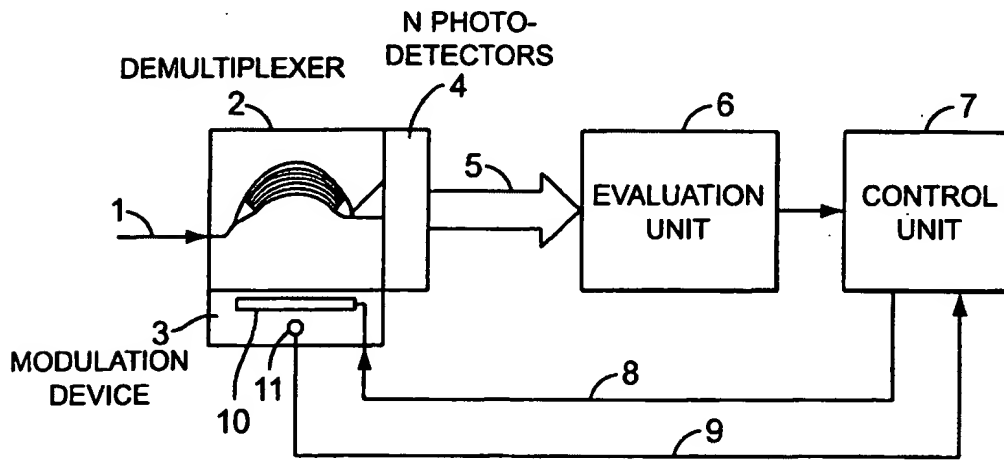


FIG. 2



Approved  
HP  
10/12/05

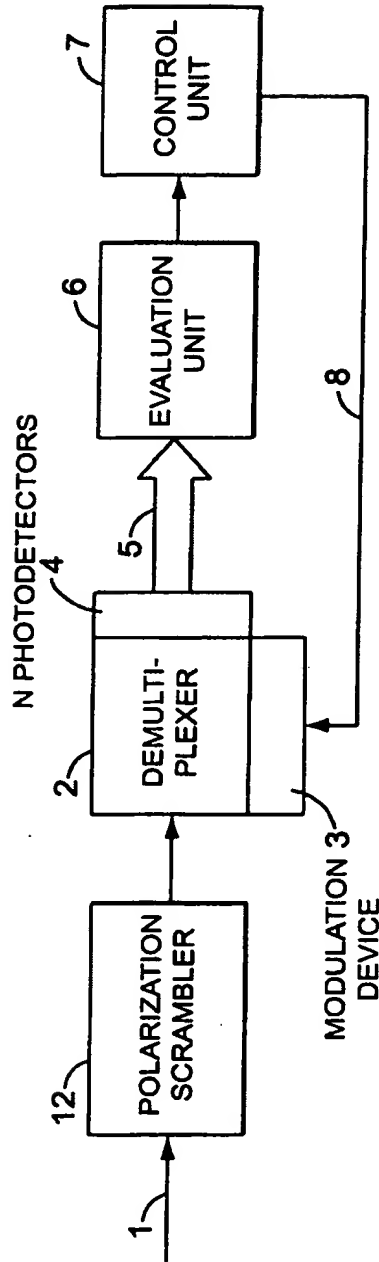


FIG. 3

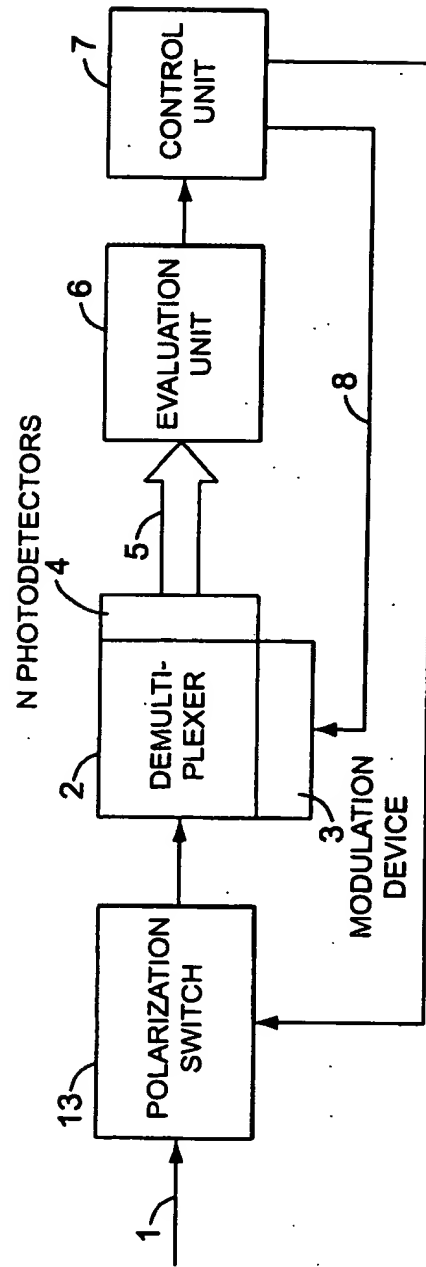


FIG. 4